

Claims

- [c1] What is claimed is:
1. An image processing device electrically connected to a computer with a serial bus cable, the device comprising:
- a housing;
 - an image capturing unit installed inside the housing for generating digital image data from a picture;
 - a memory card reading unit installed inside the housing for reading digital data stored in a memory card; and
 - an electromagnetic mechanical switch for establishing an electrical connection between the serial bus cable and the image capturing unit or the memory card reading unit, with power of the electromagnetic mechanical switch supplied by the serial bus cable;
- wherein when the electromagnetic mechanical switch switches the connection over to the image capturing unit, the image capturing unit is capable of transmitting digital image data to and receive data from the computer; and when the electromagnetic mechanical switch switches the connection over to the memory card reading unit, the memory card reading unit is capable of transmitting digital data to and receive data from the computer.
- [c2] 2. The device of claim 1 wherein when the electromagnetic mechanical switch switches the connection over to the image capturing unit, the serial bus cable is electrically disconnected from the memory card reading unit, and when the electromagnetic mechanical switch switches the connection over to the memory card reading unit, the serial bus cable is electrically disconnected from the image capturing unit.
- [c3] 3. The device of claim 1 wherein the computer further comprises a driver program for controlling the device; when a user wants to use the image capturing unit to retrieve digital image data, the electromagnetic mechanical switch switches the connection over to the image capturing unit; and when the user wants to use the memory card reading unit to retrieve digital data stored in the memory card, the electromagnetic mechanical switch switches

the connection over to the memory card reading unit.

- [c4] 4.The device of claim 1 wherein the electromagneticmechanical switch is manually controlled.
- [c5] 5.The device of claim 1 wherein the memory card reading unit is capable of storing digital data in the memory card.
- [c6] 6.The device of claim 5 wherein the computer further comprises a driver program for controlling the device; and when a user wants to first retrieve the digital image data from the image capturing unit and then store the digital image data in the memory card, the electromagnetic mechanical switch switches the connection first to the image capturing unit and then over to the memory card reading unit so that the digital image data can be stored in the memory card.
- [c7] 7.The device of claim 1 wherein the serial bus cable is a USB port cable or an IEEE 1394 cable.
- [c8] 8.The device of claim 1 wherein the serial bus cable comprises two power lines and two data lines, while the electromagnetic mechanical switch comprises two relays for switching the two power lines and the two data lines.
- [c9] 9.The device of claim 1 wherein the image capturing unit is a scanner.
- [c10] 10.The device of claim 1 further comprising a printer electrically connected to the electromagnetic mechanical switch, with the electromagnetic mechanical switch capable of switching the electrical connection over to the printer so that the printer electrically connects to the computer via the serial bus cable.
- [c11] 11.The device of claim 1 wherein when no power is supplied to the electromagnetic mechanical switch, the electromagnetic mechanical switch will switch its connection to the image capturing unit; and when power is supplied to the electromagnetic mechanical switch, the electromagnetic

mechanical switch will switch its connection to the memory card reading unit.

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